Holy Micro!'s Revolutionary Absolute AoA Receives FAA Certification – Live at Oshkosh 2025, Hangar C, Booths 3149 & 3150



Syracuse, **New York Jun 1**, **2025** (<u>Issuewire.com</u>) - Holy Micro! LLC (holymicro.com)—a trusted name in aviation for its talking AGL altimeters and voice alert solutions like the <u>SkyVoice Alert 500</u> and <u>SkyVoice Glassy Guide 400</u> (affectionately known to pilots as "Bitching Betty" or "Barking Bob")—has earned FAA certification for its latest innovation: the Absolute AoA system.

After a well-received launch at the SUN 'n FUN Aerospace Expo, where it garnered strong support from the aviation community, the FAA-approved Absolute AoA will now be showcased and available for purchase at EAA AirVenture Oshkosh 2025, reaching an even wider audience.

Why Absolute AoA Is a Game-Changer

The Absolute AoA uses a next-generation multi-sensor normalized pressure ratio technique, offering a

significant upgrade from outdated single-sensor differential systems. This modern approach delivers real-time, precise angle-of-attack (AoA) data during all flight phases and includes automated flap detection for added accuracy.

In SAIB: 2024-07, the FAA underscores the importance of AoA alert systems in improving pilot awareness and preventing stall and loss-of-control (LOC) incidents. The Absolute AoA system meets this critical need by providing a dependable, user-friendly interface that helps pilots make smarter, safer decisions.

The Limits of Conventional AoA Systems

Traditional AoA indicators that use single-sensor differential pressure are typically only useful in low-speed, high-angle conditions—scenarios already well covered by standard stall warning systems. These older systems also bring challenges like complex sensor placement, difficult calibration, drainage and heating issues.

Given that many aircraft already feature stall warning systems, why install an AoA device with such narrow functionality? Most legacy systems act only as stall indicators and lack flexibility and display consistency—limiting their effectiveness.

In contrast, the Absolute AoA offers accurate, continuous data across all flight stages—including takeoff, climb, cruise, and landing—delivering enhanced safety, performance, and pilot confidence well beyond basic stall protection.

Engineered for All Flight Conditions

This standalone system ensures precise AoA readings in any scenario using multiple sensors and a normalized pressure ratio calculation—a method validated through independent research and over two decades of test flights.

From high to low altitudes, across various speeds and load conditions, Absolute AoA offers consistent and trustworthy feedback. It goes beyond stall awareness, supporting vital flight speeds like Vx, Vy, and Best Glide. (*Patent pending.*)

Smart Design & Quick Installation

- Robust Construction: The AoA probe is built with high-strength 6061 aluminum and installs cleanly beneath the wing's inspection plate.
- LiDAR-Based Flap Detection: A standout feature that removes the need for mechanical flap connections, ensuring accurate performance profile adjustments during critical flight operations.

Installation Timeline:

- Wireless setup: Around 1 hour
- Wired installation: Typically 3-4 hours, using the existing inspection plate

Seamless Connectivity & Display Options

 Communication: Choose between Wi-Fi or wired links between the wing-mounted sensor and the cockpit module.

- Display Options:
 - 8-inch panel display
 - Bar-style dashboard display
 - 5-inch digital HMI (Human-Machine Interface) for intuitive setup and calibration

Consistent Accuracy Throughout Flight

Unlike traditional systems that lose accuracy outside of stall conditions, the <u>Absolute AoA</u> offers linear, reliable AoA data across all flight phases. This gives pilots actionable insights, especially during takeoff, approach, and slow-speed maneuvers, significantly improving safety and operational performance.

Explore more at www.holymicro.com





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